



Linda S. Adams
Secretary for
Environmental Protection



Department of Toxic Substances Control

Maziar Movassaghi
Acting Director
5796 Corporate Avenue
Cypress, California 90630



Arnold Schwarzenegger
Governor

SFUND RECORDS CTR
2337649

March 27, 2009

Marine Corps Air Station, El Toro
Base Realignment and Closure
Attn: Ms. Debra Theroux
Deputy Base Closure Manager
7040 Trabuco Road
Irvine, California 92618

COMMENTS ON NAVY'S RESPONSE TO DTSC'S COMMENTS (RTC) ON POTENTIAL RELEASE LOCATION (PRL) 354, DRAFT GROUP VI PRLs SUMMARY REPORT, FORMER MARINE CORPS AIR STATION (MCAS) EL TORO, IRVINE, CALIFORNIA

Dear Ms. Theroux:

The California Department of Toxic Substances Control (DTSC) has reviewed the subject RTC received on March 10, 2009. At this time DTSC cannot concur with the no further investigation (NFI) and unrestricted use release (UUR) recommendation for PRL 354 absence of polycyclic aromatic hydrocarbon (PAH) "hot spot" removal. DTSC can concur, however, with the NFI recommendation if future land uses at the PRL are restricted to non-residential. DTSC's decisions are based on our determination that future residents at this PRL can be exposed to unacceptable risks posed by the PAH contamination in the soil. DTSC's determination can be described in details as follows:

1. The cumulative carcinogenic risk corresponding to a benzo(a)pyrene (BAP) equivalent exposure point concentration (EPC) of 1,068 $\mu\text{g}/\text{kg}$ at this PRL is 2×10^{-5} . With the statistical outlier excluded, the risk reduces to 9×10^{-6} , which is still significantly higher than the point of departure of 1×10^{-6} , which generally is the standard used by DTSC to allow unrestricted use.
2. The polycyclic aromatic hydrocarbon (PAH) contaminations at locations HA1 and HA2 have not been adequately delineated vertically and horizontally, respectively. These two locations represent hot spots that may require removal depending on future land use.

The Navy's RTCs provide detailed additional rationale to support an NFI determination. DTSC addresses the rationale as follows:

- a. *The PAH concentrations reported are expected to represent biased high concentrations, resulting in an overestimate of risk.* Judgmental sampling is not uncommon in site characterization, e.g., samples are taken at a visible stain, in a sump, below an outfall, etc. If contamination at a site is non-existent or insignificant, the contaminant concentration will be non-detect or low, and the calculated risk will be below the point of departure, even though the sampling is biased. That is not the case with PRL 354. In addition, biased sampling may help identify hot spots which is the case here.
- b. *The planned reuse for this area is designated to be part of a proposed golf course or open space.* As stated above, DTSC presently would concur with an NFI determination for this PRL if the site is restricted to non-residential uses.
- c. *There are uncertainties associated with the use of BAP potency equivalency factors and the factors are regarded as conservative.* The use of BAP potency equivalency factors takes into account the reduced potency of the congeners other than benzo(a)pyrene, which is standard practice. It would have been conservative if the risk assessment had assumed that the other congeners had the same potency as benzo(a)pyrene, which was not the case.
- d. *The calculated risk is within the same order of magnitude as the ambient risk associated with PAHs in Southern California (Environ 2004).* The ambient risk was calculated using background data for areas close to a manufacturing gas plant and therefore not applicable to PRL 354. Each site has its specific background risk and the low concentrations of PAHs at HA4 through HA6, HA11, and HA12 suggest that background concentrations associated with PAHs at this PRL are very low.

In summary, DTSC cannot concur with the NFI and URR recommendations for PRL 354 unless PAH hot spots at HA1 and HA2 are delineated and removed. DTSC can at this time, however, concur with NFI for the PRL if future land use is restricted to non-residential.

Thank you for the opportunity to comment on the RTCs. If you have any questions about these comments, please contact me at (714) 484-5352 or qthan@dtsc.ca.gov.

Sincerely,



Quang Than
Remedial Project Manager
Brownfields and Environmental Restoration Program

Ms. Debra Theroux
March 27, 2009
Page 3 of 3

cc: Content Arnold
BRAC PMO West
1455 Frazee Rd. Suite 900
San Diego, California 92108

Marc Smits
BRAC PMO West
1455 Frazee Rd. Suite 900
San Diego, California 92108

Robert Woodings
Restoration Advisory Board Co-chair
25550 Commercentre Drive, Suite 100
Lake Forest, California 92630

Marcia Rudolph
Restoration Advisory Board Subcommittee Chair
24922 Muirlands, #139
Lake Forest, California 92630

✓ Richard Muza
U.S. Environmental Protection Agency Region IX
75 Hawthorne Street, Mail Code SFD-H8
San Francisco, California 94105-3901

John Broderick
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, California 92501-3339

Loveriza Sarmiento
Department of Toxic Substances Control
9211 Oakdale Avenue
Chatsworth, California 91311-6505